noramen t® nTx INSTALLATION INSTRUCTIONS

Australia version

nora® by Interface®

Contents

General Installation Guidelines

All nora® flooring is to be installed by nora® Approved Installers. These nora® nTx Installation Instructions cover the typical projects and circumstances where nora nTx rubber flooring is to be installed. The procedures and recommendations described in this nora nTx Installation Instructions document are developed to provide the best opportunity for a successful nora nTx flooring installation. Any deviation from these instructions may result in an installation failure. Installation and maintenance videos are also available on www.nora.com. If you need assistance, please contact the nora Technical Department in your region.

All appropriate Safety Data Sheets (SDS) and this nora nTx Installation Instructions must be read, and fully understood prior to installing any nora product. All nora nTx products are intended for indoor use only, in high stress commercial and industrial sectors, (e.g. hospitals, schools, laboratories, transportation, radiant heating and castor chair traffic).

Where concrete slabs have or are suspected of having ASR (Alkali Silica Reaction) present or hydrostatic pressure, do not proceed; contact the Technical Department.

The prepared substrate must be smooth and ridge free. Use an appropriate patching compound or self-leveling underlayment following the manufacturer's instructions. Patching or underlayment compounds must be moisture, mildew, and alkali resistant. The compounds must provide a minimum of 3000 psi compressive strength when tested in accordance with ASTM C109/C109M "Standard Test Method for Compressive Strength of Hydraulic Cement Mortars - Using 2-in. or 50 mm Cube Specimens" or ASTM C472 "Standard Test Method for Physical Testing of Gypsum, Gypsum Plasters and Gypsum Concrete". Warranties should be obtained from the manufacturer of the installed product.

Any specific requirement for level or flatness must be agreed upon by the owner, end-user, general contractor, and flooring contractor prior to the flooring installation.

NOTE: Tile "run off" may occur if the substrate is not flat.

Asbestos Warning

Do not sand, dry sweep, dry scrape, drill, saw, shot blast, mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphalt "cutback" adhesive or another adhesive, as these products may contain asbestos fibers and/or crystalline silica. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Unless positively certain the product is a non-asbestos containing material, you must presume it contains asbestos. Regulations require the material be tested to determine asbestos content. If you contemplate the removal of a resilient floor covering structure that contains (or is presumed to contain) asbestos, you must review and comply with all applicable local, state, and federal regulations.

Product Inspection

Prior to installation, the flooring contractor must inspect all nora flooring and accessories to verify the material meets the order specifications. If the wrong product or color is installed, nora systems, Inc. will not be responsible for corrections. All labels indicate product style, color, and batch number. Verify the product on site is accurate and matches the specifications for each area of the installation.

Material defects which are visible before installation cannot be acknowledged when claimed after the installation.

Conditioning

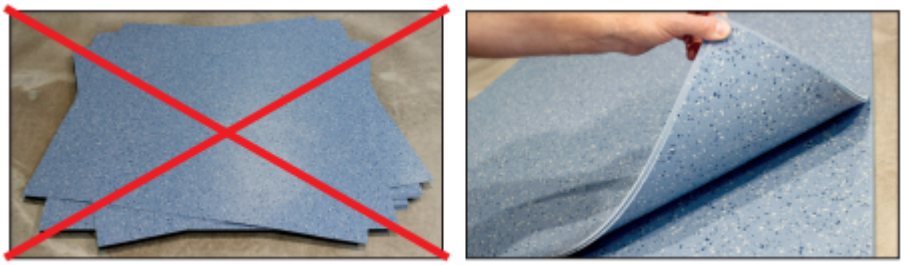
The flooring and accessories must be acclimated in the recommended environmental conditions for at least 48 hours prior to installation. Areas of the flooring subjected to direct sunlight, for example through doors or windows, must be covered using blinds, curtains, cardboard, or similar materials for 24 hours before, during, and for a period of 72 hours after the installation.

The installation area must be fully enclosed, weather tight, and climate controlled between 17°C and 24°C and 40% to 60% ambient relative humidity (RH) for at least 48 hours prior, during and 72 hours after installation (do not use gas fueled blowers). All substrates must be climate controlled between 17°C and 24°C. If this is not possible, contact the Technical Department.

Avoid conditions where dew point allows for the condensing of moisture on concrete substrates. The substrate must be at least 3°C above dew point to be considered acceptable.

Example: If the ambient conditions are 21°C and 65% RH, the dew point is 14°C; you must not proceed with the installation. The surface temperature must be a minimum of 15°C. Dew point calculation charts are available on the internet.

Please make sure the material is properly stored on site. Tiles need to be stacked neatly.



wrong correct

Substrate Preparation

CONCRETE

Subfloors must be dry, sound, clean and smooth (CPS 1 profile) in accordance with the relevant Floorcoverings Australian Standards. Subfloors must also be free of wax, grease, oil, polishes, old adhesive, curing compounds, high levels of moisture and any other surface contaminants that may affect adhesion. All surfaces to be bonded shall be absorbent, dry, smooth, sound and clean. If mechanical preparation is required, prepare the floor using recommended preparation methods such as shot blasting or diamond grinding, to provide a clean, sound, and open porous surface. Thoroughly vacuum loose material and dust.

Surface cracks, grooves, depressions, control joints or other non-moving joints, and other irregularities must be filled or smoothed with a patching or underlayment compound. These compounds must be designed to resist moisture in concrete substrates up to 95% RH, be mildew, alkali resistant and must provide a minimum of 3000 psi compressive strength when tested in accordance with ASTM C109/C109M "Standard Test Method for Compressive Strength of Hydraulic Cement Mortars - Using 2-in. or 50 mm Cube Specimens" or ASTM C472 "Standard Test Method for Physical Testing of Gypsum, Gypsum Plasters and Gypsum Concrete", whichever is appropriate. Warranties should be obtained from the manufacturer of the installed product.

NOTE: In areas that are suspected of high moisture, it may be possible to use standard patching and smoothing compounds following specific guidelines which will include moisture testing of the concrete substrate. Please contact the Technical Department for specific details.

Expansion, moving joints or moving cracks must not be covered with any nora product. Use a suitable industry standard expansion joint assembly system. In the event of moving cracks or joints, please contact the Technical Department for recommendations.

WOOD SUBFLOORS

Timber subfloors should comply with detail set out in AS1884:2021 section 3.6. "Timber, plywood, particleboard and fibre cement sheet subfloors and have a recommended total minimum thickness of 32mm.

All suspended wood floors must have adequate under floor ventilation and a permanently effective vapor retarder or membrane placed directly on the ground beneath the air space.

Do not install directly over any oriented strand board (OSB), particleboard, lauan, fire retardant treated plywood, or any similar unstable substrates.

Timber subfloors should be prepared to comply with AS 1884:2021 section 3.6.3 "Preparation of timber, plywood and particle board subfloors".

For recommended underlays for timber subfloors refer to AS1884:2021 Section 1.4.3 "Underlay and Underlayment" –

- Hardboard underlay conforming to AS/NZS 1859.4.
- High performance medium density fibreboard conforming to AS/NZS 1859.2
- Plywood underlay of minimum Grade C conforming to AS/NZS2908.2
- Fibre cement sheet underlay conforming to AS/NZS 2908.2

Underlayments must be able to withstand maximum pressure loads as per the following table -

Flooring	Thickness in mm	Max. Pressue Load in N/mm²
norament®nTx	3.6	6

GALVANIZED/STAINLESS STEEL AND ALUMINUM SUBSTRATES

Abrade the existing galvanized/stainless steel or aluminum by using mechanical systems (i.e. disk sander with 40-grit sandpaper). Clean the galvanized/stainless steel, or aluminum by sweeping and then wiping with 70% isopropyl alcohol.

REGULAR STEEL SUBSTRATES

All rust must be removed by sand blasting or other mechanical methods. To prevent the steel from rusting again, RLA PU-95 must be applied to the steel substrate. Any questions, please contact the Technical Department.

OVER EXISTING FLOOR COVERINGS

nora nTx can be installed over existing smooth finished non-cushion backed, and securely bonded floor coverings, (e.g. VCT, rubber, linoleum, and vinyl). The existing flooring must not have any voids that could telegraph through the nora flooring. nora nTx can also be installed over properly prepared terrazzo, ceramic, and quarry tile floors. The responsibility for determining if the currently installed resilient flooring is well-bonded to the substrate and that any texture or embossment will not telegraph through the new installation rests with the owner, general contractor and flooring contractor. If the RH% in the substrate exceeds the limits of the existing flooring, nora systems, Inc. recommends complete removal of the existing flooring and prepare the substrate as outlined in the concrete section of these instructions. Note: Installations over existing resilient flooring may be more susceptible to indentations.

To fill voids or surface irregularities, use a patching compound that is suitable for bonding to existing floor coverings. Sand the surface to a smooth finish as needed. A primer may be required so it is important to check with the patch manufacturer for specific mixing and installation instructions. Any product warranties or performance guarantees are the responsibility of the selected manufacturer.

Primer

It is mandatory to use a primer, which is a surface bond enhancer, for all nora nTx installations. nora systems inc recommends RLA PU-95 Primer. Any other primer will need to be bond tested for primer to nora product as well as primer to subfloor. These instructions refer to use of RLA PU 95.

APPLICATION

Coverage ~ 200g / m2 per coat

Use a microfiber paint roller and paint tray. Do not pour the RLA PU-95 directly on the substrate. Pouring directly on the substrate will cause the Primer to foam in the poured areas, and then require mechanical removal and reapplication of the affected areas.

Apply a very thin, even layer of RLA PU-95 avoiding thick applications, puddling, voids, and roller lines. The applied Primer should have an opaque and smooth appearance. If the Primer has an orange peel textured surface do not proceed, as the Primer is applied too thick. Immediately, using a dry microfiber roller, go over the surface again while it is still wet to remove the excess. Thick applications will need to be mechanically removed if left to dry.

PREPARATION FOR FLOORING

When fully dried to a tack free state (~ 2 to 3 hours), use a standard patch trowel or similar, and back trowel the installation area removing any loose contaminants or debris bonded to the RLA PU-95 surface. Vacuum the prepared area.

RLA PU-95 requires sanding after 24 hours of first application to bond with additional applications. If the surface of the Primer is compromised or damaged, the area will require reapplication. Only after the RLA PU-95 is known to be completely dry, sand the affected area smooth and reapply. If patching is required, remove the Primer completely in the affected area, ensuring a clean, sound substrate is achieved. Apply the repair or patching compound to affected area. Once dried, sand and smooth to remove any residual patching compound off the surface and perimeter surrounding areas of RLA PU-95. Once the repaired area is clean and smooth, apply a thin even layer of RLA PU-95 to the area and ensure existing surrounding areas are covered. Avoiding thick applications, puddling, dry spots and roller lines.

Please note - Patching and smoothing compounds will not bond directly to RLA PU-95.

Installation

The material layout should be decided by the architect, designer, and end user; however, nora recommends that tiles are installed point to point (corner to corner). The tiles and sheet flooring have arrows on the backside, and these should always be pointed in the same direction. The exceptions being norament® arago planks, which can be installed in multiple directions and patterns.

NOTE: Avoid chalk lines on the prepared RLA PU-95 as chalk residue will inhibit the adhesion of the nora nTx flooring.

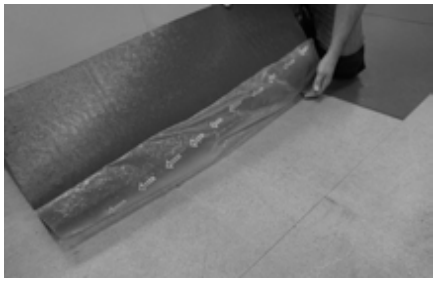


Image 1.

TILES AND PLANKS

After the area is prepared, locate your center, and start lines using the 3/4/5 method or a carpenter's square. Balance the layout and use a pencil to mark your starting lines. Begin installing from the center of the room following the start lines. Dry-lay the flooring tiles following the design layout. Ensure all arrows are pointing in the same direction unless specified otherwise.

Image 2.

For the starting row, peel back the protective film 30cm along the starting side of the tile (Image 1). Place the exposed adhesive portion of the tile into position, then fold back the tile and remove the remaining protective film (Image 2). Finally, place the remaining section into position. Do not stretch or distort the tile during placement. It may be helpful to remove the protective film in 3 sections if placement is difficult. The starter row should be a least 5 tiles to allow for a pyramid installation. This method will keep the edges of the tiles aligned and minimize tile run off.

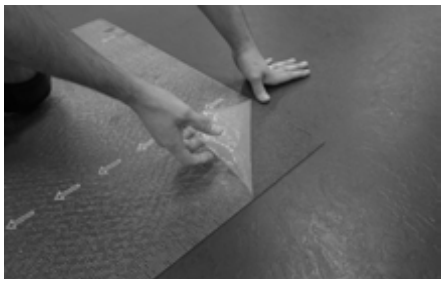


Image 3.

To continue the installation, start with a corner of the tile and peel the protective film as needed, 30cms from the corner is typical (Image 3).

NOTE: Tile corners must be lined up together. nora nTx tiles will not always fall exactly in line with the adjacent tile without manipulation of the edges due to the immediate grab of the nora nTx adhesive. It is not uncommon to require slight stretching or compressing of the tile to keep tile corners in line. Warmer conditions will make the nora nTx adhesive bond faster. Removing the protective film in smaller sections will help with placement of tiles in these conditions.

Image 4.

Install the exposed adhesive corner first, and then remove the film from one half and align the edge with the previously installed tile (Image 4). Next, remove the film leaving the far corner covered and position the opposite edge of the tile to meet the adjacent installed tile (Images 5, 6, and 7). Pull the remaining film and allow the tile to fall in place.

When completed, roll the entire area using a 45-70kg roller.

Image 5.

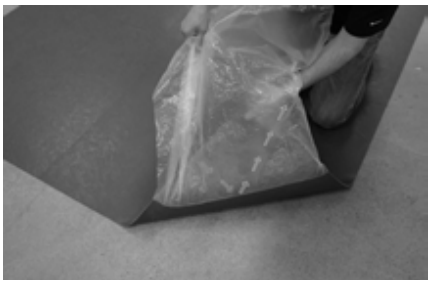


Image 6.

Image 7.

Post Installation

nTx flooring can be walked on immediately. If required, protect the flooring using plywood or Masonite, ensuring first that the flooring surface is free of all debris. Lay the panels so that the edges form a butt joint and tape the joint to prevent movement and debris entrapment underneath them.

A post installation clean must be carried out to remove manufacturing residues. Refer to the detailed norament Maintenance Guide for these instructions.

Skirtings

At the intersection between the wall and substrate, gaps cannot be more than ~ 13mm. If a larger gap exists, fill and smooth using a suitable filler, before installation. Ensure that the wall is dry, smooth, and clean. If pre-formed skirting angles are being used, these must be installed before the skirtings.

APPLICATION

nora® skirtings should be adhered using nora profix. Fix the double-sided tape to the wall and the subfloor. Do not remove the protective paper until you are ready to stick. After cutting to fit and preparing the corners, adhere the skirting to the wall, and press or roll (hand roller) to obtain a strong bond. Do not stretch the skirting during installation or it may shrink back later. To help avoid possible shrinkage, slightly compress the skirting during installation.

INTERNAL CORNERS

These can be cut and tightly fit, scribed or completed in one piece by scoring the back at the wall corner, and then while folded over itself, remove a section of the toe directly under the score line, slightly less than a 45° angle. Alternatively, pre-formed skirting angles can be used.

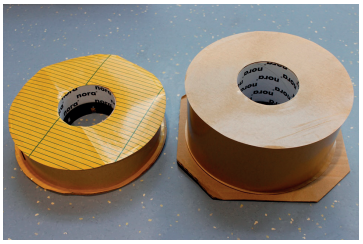
EXTERNAL CORNERS

These must be well heated using a hot air heat gun, held in the creased position, then allowed to cool. nora systems, Inc. does not recommend shaving the back as this will weaken the corners. External corners may need to be cold welded for durability. Alternatively, pre-formed skirting angles can be used.

INSTALLATION

1. Prior to installation, mark the height and the base width of the skirting with a pencil or chalk line. This ensures that the skirting angles can be fitted and fixed in alignment with the skirting.

2. For the fixing of the skirting and skirting angles we recommend nora® profix 90* for the wall section and nora® profix 50* for the floor section. Fix the double-sided tape to the wall and the subfloor. Do not remove the protective paper.



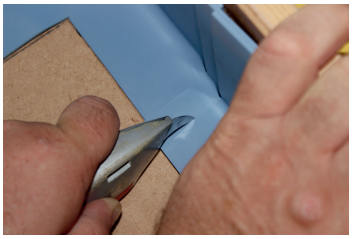
*or comparable product by a different manufacturer. The suitability and processing as well as the consumption of the chosen adhesive can be gathered from the build-up recommendation and the technical data sheet.

3. Before gluing the inner and outer skirting angles check their right angularity using a piece of skirting (breadth at least 10 cm).
Alternatively a frame square can be used.

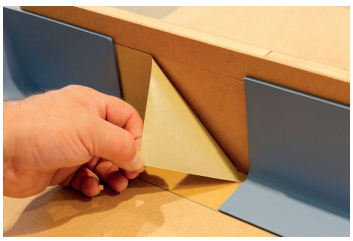
4. Knock the skirting angles onto the wall and floor with a light coloured rubber mallet.

5. Next the skirting is cut. Between the inner and outer skirting angle the skirting requires a minimum length of 10 cm, shorten the angles if necessary. A piece of skirting is placed overlapping the affixed skirting angle. Use another stripe of skirting (minimum length 10 cm) as a ruler.

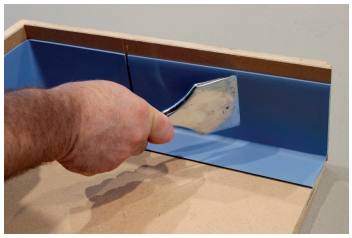
6. As the joints between skirting angles and skirtings have to be sealed, the skirting is placed in such a way to the angles as to create a joint width of 2-3 mm. Mark the skirting along the edge of this "ruler" using a straight blade.
After removing the "ruler" the protruding part is cut off. This will produce neat connections.

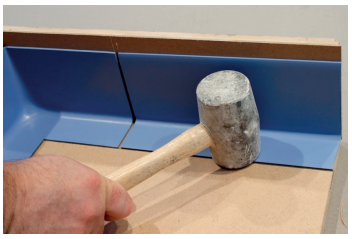


7. Remove the protective paper from the double-sided tape.

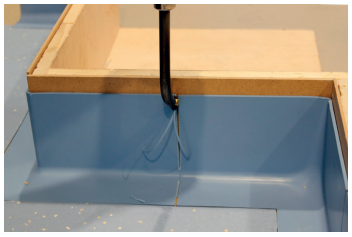


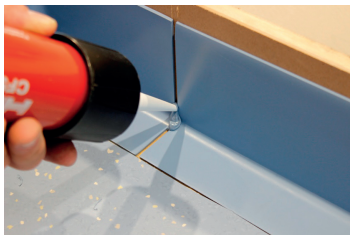
8. Then press the skirting and the skirting angles down and knock them into place with a light coloured rubber mallet.

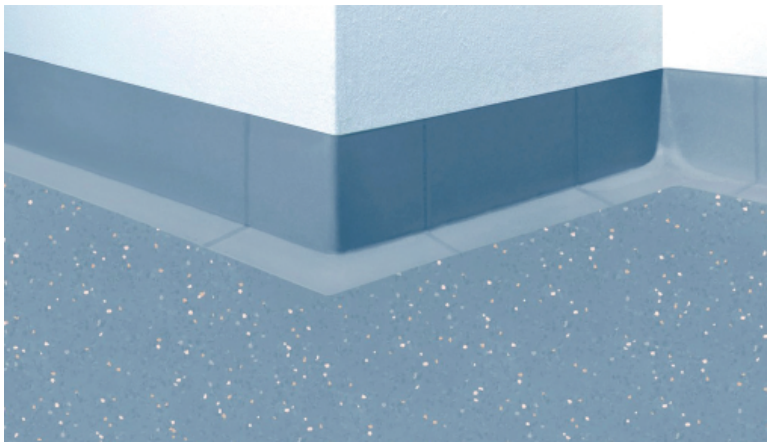




9. All joints along the skirting and skirting angles must be sealed with nora® 1 component cold weld. This can be done directly after the installation and the application of nora® liquid wax (see Cold Welding).







Finished installation

Cold Welding

Cold welding with nora 1-component joint sealing compound is the recommended solution for joint sealing of norament if required. Either the liquid wax or tape method may be used.

When installing nora nTx, welding can be performed immediately. nora cold weld must be used on all inside and outside corners, where specified or required and for skirtings.

To prevent bonding of the nora cold weld outside of the seam, use a clean cloth to apply a thin even layer of nora liquid wax to both sides of the seam ~ 100 mm, and allow to dry.

Groove the required seam with a mechanical joint cutter or hand-grooving tool. The depth of the groove must be a minimum of 1.5 mm. The width of the groove must be ~ 2.5 mm. Outside of the seam, use a clean cloth to apply a thin even layer of nora liquid wax to both sides of the seam ~ 100 mm, and allow to dry.

For vertical seams, a small bendable straight edge can be helpful during the trimming or grooving process.

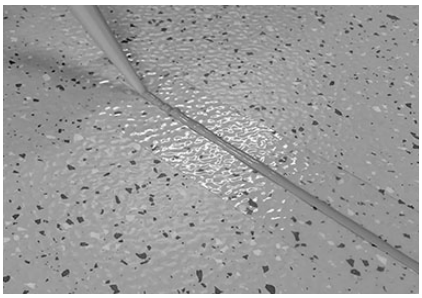


Image 1

The use of nitrile gloves is recommended when handling nora cold weld.

Cut the cone tip off the tube above the threads, screw on the nozzle and place the cold weld tube into a cartridge gun.

Inject the nora cold weld into the groove without gaps until a small bulb develops above the seam about the size of heat weld rod (Image 1). At the end of the seam, release the gun to prevent leaks. Any nora cold weld tracked or spilled on the flooring must be removed immediately using 70% Isopropyl alcohol and a clean cloth, cleaning at a later stage may not be possible.

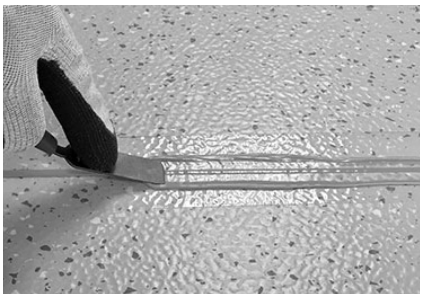


Image 2

Press the nora cold weld into the seam using the flat side of the nora smoothing spatula, held nearly flat (~ 20° angle), resulting in a surface flush and on the same plane as the surface of the floor (Image 2). Excess cold weld must be pressed away on each side of the seam. It is important to develop a slight gap between the excess weld and the weld within the seam for easy removal once cured.

For corners, use a smoothing spatula to remove the excess cold weld and smooth the surface to the required finish. Wait for ~ 10 minutes for the weld to skin over. Spray 70% Isopropyl alcohol onto the cold weld, and finish the weld by lightly smoothing with your finger to a smooth rounded acceptable finish.

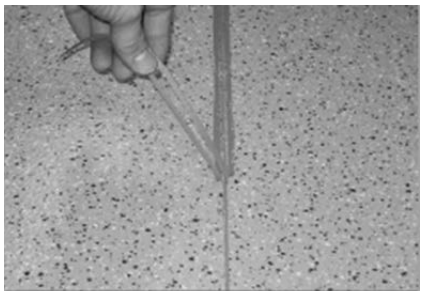


Image 3

The excess cold weld can be peeled off and removed after (~ 3 to 8 hours), depending on its thickness, ambient temperature and humidity. This can be done by simply peeling it off with your fingertips (image 3). If the cold weld is still connected anywhere, then trim it off using a sharp knife. Prevent any traffic on the seams until the nora cold weld has cured for ~ 8 hours.

Maintenance can be performed using a wet mop after 8 hours, machine scrubbing after 24 hours and, if required, buffing floors after 72 hours.

TAPE METHOD

Welding can be performed immediately with nora nTx. nora cold weld must be used on all corners and when required for skirtings, or if specified.

To prevent bonding of the nora cold weld outside of the required seam, use tape (Bear brand Duct Tape or similar) to completely cover the seam that requires welding. Centre the tape with the seam. Use a steel hand roller to firmly press the tape down and ensure a good bond.

Groove the seam with a mechanical joint cutter or hand-grooving tool, ensure all grooves are clean. The depth of the groove must be a minimum of 1.5 mm. The width of the groove must be ~ 2.5 mm.

For vertical seams, use a small straight edge to trim or groove the seam or skirting back, ~ 2.5 mm. Carefully apply tape onto the surface of each side of the seam, keeping the edge of the tape flush with the edge of the flooring. Press or roll (hand roller) the tape and ensure a good bond.

Image 1

Image 2

The use of nitrile gloves is recommended when handling nora cold weld. Cut the cone tip off the tube above the threads, screw on the nozzle and place the cold weld tube into a cartridge gun. Inject the nora cold weld into the groove without gaps until a small bulb develops above the seam about size of heat weld rod (image 1). At the end of the seam, release the gun to prevent leaks. Any nora cold weld tracked or spilled on the flooring must be removed immediately using 70% Isopropyl alcohol and a clean cloth, cleaning at a later stage may not be possible.

Press the nora cold weld into the seam using the flat side of the nora smoothing spatula, held nearly flat (~ 20° angle), resulting in a surface flush and on the same plane as the surface of the floor (image 2). Excess cold weld must be pressed away on each side of the seam. It is important to develop a slight gap between the excess weld and the weld within the seam for easy removal.

For inside corners, clean the surface using 70% Isopropyl alcohol and allow to dry. Carefully apply the cold weld to the corners. Do not apply more than is needed. Use the rounded end of the nora smoothing spatula to remove the excess cold weld creating a rounded joint. Spray 70% Isopropyl alcohol and finish the weld by lightly smoothing it with your finger to an acceptable finish.

For outside corners, apply the cold weld and shape to a square corner by removing the excess cold weld. Pull the cold weld to the side using the flat end of the spatula or a suitable putty knife. Wait for ~ 10 minutes for the weld to skin over. Spray 70% Isopropyl alcohol onto the cold weld and finish the weld by lightly smoothing with your finger to a smooth rounded acceptable finish.

The tape can be peeled off immediately or after it has cured for at least 6 to 8 hours depending on thickness, temperature and ambient humidity. Prevent any traffic on the seams until the nora cold weld has cured. Maintenance can be performed using a wet mop after 8 hours, machine scrubbing after 24 hours and, if required, buffing floors after 72 hours.

Heat Welding

Cold welding with nora 1-component joint sealing compound is the recommended solution for joint sealing of norament if required. Hot weld may be used, but may not give as smooth a finish as the cold weld.

Heat welding can be performed immediately after installation. Heat welding should not be used on vertical corner seams or when welding to nora skirtings, these areas require nora® cold weld.

Groove the seams with a mechanical joint cutter, or hand-grooving tool, ensure all grooves are clean. The depth of the groove must be a minimum of 1.5 mm. The width of the groove must be ~ 3 mm.

Preheat the welding gun to 350°C – 400°C. It is recommended to practice welding on a piece of scrap flooring material first to determine the heat setting and speed, as different heat guns and cable length will affect the temperature.

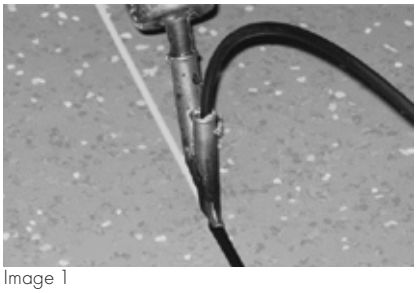


Image 1

Image 2

NOTE: If the weld rod comes out during trimming, then either you welded too fast or the gun is not hot enough. The weld must melt at a lower temperature. Turning up the heat too high can burn the edges of the grooved seam. The best method is to run the heat gun slower and at a lower temperature.

Cut a length of nora® heat weld the length of the seam. Proceed to weld the seam starting at the wall and apply slight pressure to the gun nozzle (nose) to force the melting rod into the groove (Image 1). The heat weld rod must have a flattened top and small bead on both sides.

Make the first cut of the weld rod warm (Image 2). Use a Mozart trimming knife with the 0.7 mm spacer claw to remove most of the weld. Allow the weld rod to cool to room temperature.

Next, use the Mozart trimming knife (without the spacer claw) to finish trimming the remainder of the weld. The finished weld should be smooth and on the same plane as the floor covering.

If any excess weld rod is left after the final trim, it can be removed using the melting technique. To perform this, heat up a non-sharpened metal putty knife and gently push it down the seam weld. The heat gun can be held on the top of the putty knife to keep the knife warm. Excess weld material will collect on the knife.

Maintenance can be performed using a wet mop after 8 hours, machine scrubbing after 24 hours and, if required, buffing floors after 72 hours.

Contact Information

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